

Major General A. D. Starbird
Director, Division of Military Application

September 29, 1960

Charles L. Dunham, M. D.
Director, Division of Biology and Medicine

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**REQUEST FOR INFORMATION NEEDED FOR ANALYZING THE DISTRIBUTION
AND PROPERTIES OF FALLOUT PARTICLES**

FSB:DEM:HAK

Enclosure (1) is a letter from Dr. Lester Machta, Chief, Special Projects Section, U. S. Weather Bureau, requesting information which will permit estimates concerning the size and distribution of fallout particles from Pacific test shots.

This same information will also be useful to our Fallout Studies Branch and to the U. S. Naval Radiological Defense Laboratory. NRL is doing work for us on the physical, chemical, and radiological properties of fallout.

We have checked with Dr. Machta and determined that his interests are limited to the surface, tower, and barge shots in **HARDTACK**, **HEWING**, and **CASTLE** which have yields over 100 kt, and in **BOY Mike**. Of particular interest is the barge weight, barge loading, depth of water, crater dimensions and the chemical and physical characteristics of any coral or special sands placed around the devices to limit world-wide fallout.

It may be of some help in the search for the material Dr. Machta has requested to refer to Appendix B on page 78 et seq. of the January 1960 report of our Fallout Studies Branch entitled, Contribution of Induced Activities to the External Gamma Radiation from Fallout of Clean and Normal Weapons. This appendix contains the type of material requested by Dr. Machta for several of the shots of interest. In this case the information was provided in a letter dated June 29, 1959 from Mr. S. P. Howell, Manager, Engineering and Construction, Holmes and Narver, Inc. and addressed to Mr. J. B. Sanders, Director, Pacific Operations, Albuquerque Operations Office.

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Enclosure (1)

Letter Machta to Dunham
dated September 23, 1960

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✓ cc: Dr. Lester Machta, USWB

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